

# Virtual Matrix Display, the Next Step in IP Video Design

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Following are answers to the many questions submitted during the live event, some of which we did not have time to answer during the Q&A session following the presentation.

## Webinar Q&A

Is it possible to have a virtual matrix set up at some monitoring areas within a system and use a traditional PC interface in other areas?

Yes. The Virtual Matrix Controller (VMC) is using video sent from any ViconNet DVR or IP camera. At the same time, users who want to keep using their PC-based client software can do so.

Using the virtual matrix, can I limit which cameras can be controlled and viewed from specific monitoring locations?

Yes, you can limit which VMC sees which monitor and also set up the system to block certain cameras from being used by certain users.

You said that the KRX-3 decoder can output to VGA. If IP systems without virtual matrix capabilities can display on PC monitors, then why is it necessary to use a decoder to connect additional VGA monitors to the system?

The usage is for monitor wall type systems (like control rooms) and to be able to "hang" a monitor on the network anywhere without the need for a full PC, its operating system and hard drive.

What is the delay time from camera to monitor when using a virtual matrix?

On a properly designed network that doesn't add delay, about 500ms.

Is one decoder needed per monitor?

The KRX-3 can operate three monitors at a time.

If the KRX-3 can drive three monitors, can each monitor display four cameras?

Yes, it can. One KRX-3 can support a maximum of 12 cameras if four cameras are displayed on each monitor.

Do you see the virtual matrix as a product that's right for most installations?

The virtual matrix is another display and control option for the ViconNet system. It fits very well into many applications. For those applications that don't need or want a VMC, the PC-based viewing software is still available. The biggest advantage is that both solutions work together.

How do I help my customers compare the costs between traditional matrix and virtual matrix type systems?

This will require some information as to the number of cameras and monitors and the recording requirements. The VMC offers a few key features that the analog matrix doesn't, like recording and playback.

Are clients wanting dedicated security networks or are they using corporate networks with subnets separation?

There is a transition away from the "dedicated network" approach, with customers increasingly making use of the "existing network." That transition is leading to the involvement of IT professionals within the CCTV design process and helping to make better networking options available.

Do you recommend only setting up IP systems on subnets?

This depends on the existing network and its ability to carry the video.

Can you determine access rights based on Windows user name and password or do you need to have a separate sign-in process? Who manages user access to the software, IT or security administrators?

The user rights are determined in the system and don't tie into the Windows rights at this time. The person who manages the system rights will vary from organization to organization. Sometimes it will be the security manager, sometimes the IT manager and sometimes HR.

Will the virtual matrix allow synchronized playback across multiple recorders?

You can playback many cameras from different recorders; synchronizing needs to be done at playback time.

Could someone hack into the security surveillance cameras like someone would do when they hack into a computer system?

It is very unlikely and depends mainly on the network security. If the network is secure and protected, the video system's additional security should keep it well protected.

Does this system require the use of Vicon IP cameras?

It requires either Vicon IP cameras or any analog camera running through a ViconNet encoder.

When will it support competitors' IP cameras?

ViconNet Version 5, which is scheduled for late 2008, will support those.

What do you recommend for a "client hand off" for that allows only for viewing?

You can use either a PC-based viewer or a simple analog monitor that will show desired cameras by schedule or event.

Is it possible to send a camera to a cellular phone?

There is a software package that can provide for that.

Can macros be used to direct cameras to specific monitors in the virtual matrix on pre-defined alarms?

Yes, they can.

How would you handle a legacy analog camera platform?

In order integrate a legacy analog camera platform with a virtual matrix, the analog camera feed would first need to be converted to digital video using either a DVR or encoder. Once accomplished, integration with a network offering virtual matrix capabilities would be the same as if using IP cameras.

Can you talk about compression and file sizes?

ViconNet uses an MPEG4-based compression to ensure high quality video at minimal file size.

Is the large video bandwidth problem being addressed in large companies that use it for many other data transfers?

Bandwidth is becoming less of a problem as networks grow and become cheaper. The IT person can limit certain data to a certain size and prevent it from choking the network.

Is the client software browser based or thick client on a workstation?

It is a thick client for full functionality; browser-based provides viewing only.

Do you expect to have an IP keyboard?

Yes, we do. It's in the design stages.

What outputs does the KRX-3 provide?

It offers BNC, S-video and VGA.

Can the end user at a workstation set up a sequence of cameras?

Yes, you can do this through macros.

We are interested in live video streaming. How can we make this happen?

This type of system is more of a video broadcast solution than CCTV. You should look for online meeting solutions and media servers.

When will the decoders and VMC be available?

We will begin taking orders July 1. Products will ship beginning July 16.

As a rule of thumb, what is the bandwidth usage of each camera when recording or being monitored?

Bandwidth depends on many parameters. We offer bandwidth charts to assist with this type of calculation.

Can the KRX-3 decoder work with encoders from other vendors?

Not at this time.

When will audio with video through virtual switching be available?

This feature is currently on the future road map.

How many cameras can the virtual matrix display handle?

One VMC can display 32 cameras at a time. It doesn't limit the number of monitors, only the number of concurrent video feeds.

What is the resolution of each image in the quad output?

The resolution depends on the encoding resolution. If it is encoded at 4CIF it will display at 4CIF on a quarter of the monitor.

Are there plans to integrate with access control?

There are several access systems that are already integrated, including Lenel, Hirsch, RS2 and DSX. A few more are on the way. Ask your sales rep.

Is there a module available to input multiple alarm points to the virtual matrix?

Currently, the alarm inputs are through the DVR and encoder. Vicon is working on an input device.

I have noticed that analog cameras offer better lux and resolution. Are IP cameras going to catch up to the sensitivity of analog, low light cameras?

Absolutely. This is already happening.

Can the VMC support mega pixel cameras?

Not at this time.